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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,975	01/05/2004	Takashi Chuman	Q78871	1860
23373	7590	07/03/2006	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			ROSASCO, STEPHEN D	
			ART UNIT	PAPER NUMBER
			1756	

DATE MAILED: 07/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/750,975	CHUMAN ET AL.	
	Examiner	Art Unit	
	Stephen Rosasco	1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 05 April 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 10-18 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-9 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/5/04, 8/11/04</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

Detailed Action

Applicant's election without traverse of Group I (claims 1-9) in the reply filed on 4/5/06 is acknowledged.

The disclosure is objected to because of the following informalities: page 6, bottom of second paragraph, "do not pass the gaps".

Appropriate correction is required.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-9 are rejected under 35 U.S.C. 102(a) as being anticipated by JP 10-315648.

The applicant discusses the limitations of the prior art in that the mask is thin so that the mask is easy to bend. If the mask bends during the layer forming process, the opening of the mask changes its shape so that the resulting layer does not have a desired pattern.

In the claimed invention the masking portion 4 includes a plurality of shielding (masking) parts 6. Each shielding part 6 includes a plurality of parallel linear elements 5 arranged next to each other. The linear element 5 is a resin wire having a 10-micrometer diameter. It should be noted that three linear elements 5 form a single shielding part 6 in FIG. 1, but this is for the sake of easy illustration. In actuality, the shielding part 6

includes more linear elements 5. Ends of the linear elements 5 are located on the edge of the window 2 of the frame 3.

JP 10-315648 teaches claims 1-9.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amemiya (6,855,467) or Kim (6,316,151) in view of JP 10-315648.

Claims 1-4 are drawn to a mask assembly comprising: a frame having a window, the window having an edge; and a masking part supported by the edge of the window, the masking part including a plurality of shielding portions spaced from each other to form the predetermined opening pattern, each shielding portion having at least one linear element.

And wherein each of the plurality of shielding portions includes a plurality of parallel linear elements arranged next to each other.

Claims 5-9 teach the use of a coating on the shielding portions and the use of a resin wire.

The applicant discusses the limitations of the prior art in that the mask is thin so that the mask is easy to bend. If the mask bends during the layer forming process, the opening of the mask changes its shape so that the resulting layer does not have a desired pattern.

In the claimed invention the masking portion 4 includes a plurality of shielding (masking) parts 6. Each shielding part 6 includes a plurality of parallel linear elements 5 arranged next to each other. The linear element 5 is a resin wire having a 10-micrometer diameter. It should be noted that three linear elements 5 form a single shielding part 6 in FIG. 1, but this is for the sake of easy illustration. In actuality, the shielding part 6 includes more linear elements 5. Ends of the linear elements 5 are located on the edge of the window 2 of the frame 3.

Amemiya teaches a transfer mask to transfer a transfer pattern to a substrate by use of energy beams, having shielding patterns made from thin film by forming aperture patterns in a thin film portion supported by a supporting frame, said transfer mask comprising: a shielding pattern split for forming a complementary pattern, wherein the pattern before forming said split pattern is on one end connected and supported by a supporting portion and the ratio of the pattern surface area to the supporting portion cross sectional area (the surface area/the supporting portion cross sectional area) is larger than 5000.

Kim teaches a stencil mask comprising a membrane formed over a frame; and a scatterer formed over the membrane for scattering electrons penetrating the membrane, wherein the scatterer has a multi-layered structure having at least two layers, each of the layers being made from a material different from the material of the other layer so as to form an interface between the layers for reflecting at least a portion of electrons penetrating the scatterer, whereby the thickness of the scatterer can be minimized.

The teachings of Amemiya or Kim differ from those of the applicant in that the applicant teaches forming a coating on the shielding portions and the use of a resin wire.

It would have been obvious to one having ordinary skill in the art to take the teachings of over Amemiya or Kim and combine them with the teachings of JP 10-315648 in order to make the claimed invention because the use of a coating to extend coverage or for protection or seal gaps is well known and the advantages would have been obvious.

Conclusion

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Stephen Rosasco whose telephone number is (571) 272-1389. The Examiner can normally be reached Monday-Friday, from 8:00 AM to 4:30 PM. The Examiner's supervisor, Mark Huff, can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



S. Rosasco
Primary Examiner
Art Unit 1756

S.Rosasco
06/20/06